



## Sierra Nevada yellow-legged frog *Rana sierrae*



**CLASSIFICATION**  
Endangered, April 2014

### DESCRIPTION

The Sierra Nevada yellow-legged frog is medium size, measuring about 1.5 to 3.25 inches on average. Females also tend to be slightly larger than males. Adult frogs have a mix of brown and yellow coloring on their upper body, but can also be grey, red, or greenish-brown, usually with dark spots or splotches. These spots can look like lichen or moss, as to give the frog a “camouflage” look to them. Their belly and underside of their back legs, and sometimes all the way up to their front legs, are yellow or light-orange. This gives the frog its name of “yellow-legged.”

If disturbed or threatened, these frogs can produce a distinctive mink- or garlic-like odor to ward off predators and other animals. Although these frogs do not have vocal sacks, they can vocalize in or out of water, making what has been described as a flat “clicking” sound.

The Sierra Nevada yellow-legged frog is very similar to the Mountain yellow-legged frog in that they look and are found in very similar habitats, but are a genetically different species, with a physical difference being that the Sierra Nevada yellow-legged frog has shorter legs on average. At one

time, both species were thought to have been only one, the Mountain yellow-legged frog, until biologists determined that they were indeed different species.

Typical habitat would include lakes, ponds, marshes, meadows and streams, at high elevations. They tend to spend the winter at the bottom of frozen lakes, emerging shortly after snow melts. In years of heavy snow, these frogs may only be active for about 3 months.

### DISTRIBUTION

The Sierra Nevada yellow-legged frogs occupy the western Sierra Nevada north of the Monarch Divide (in Fresno County) and the eastern slope of the Sierra Nevada (east of the crest) from Inyo County, through Mono County (including the Glass Mountains), to areas north of Lake Tahoe.

Throughout their range, these species historically inhabited lakes, ponds, marshes, meadows, and streams at elevations typically ranging from 4,500 to 12,000 feet, but can occur as low as 3,500 feet in the northern portions of their range.

Mountain yellow-legged frogs are highly aquatic; they are generally not found more than 3.3 feet from water and adults can be found sitting on rocks along the shoreline, where there was little or no vegetation.

Although the area where the frog is found is close to what it had been historically, there are far fewer frogs found within this area now. Studies show that populations of Sierra Nevada yellow-legged frog have declined by almost 70 percent. This is due to a variety of possible

factors, including a loss of habitat to fish stocking, disease, and changes due to climate change, among other possibilities.

Most of these frogs are now found on National Forest and National Park lands.

### THREATS

Threats include habitat degradation and fragmentation, predation and disease, climate change, inadequate regulatory protections, and the interaction of these various stressors impacting small remnant populations. There has been a range-wide reduction in abundance and geographic extent of surviving populations of frogs following decades of fish stocking, habitat fragmentation, and most recently a disease epidemic.

Surviving populations are smaller and more isolated, and recruitment in disease-infested populations is much reduced relative to historic norms.

**CRITICAL HABITAT:**  
Proposed 2013

**RECOVERY PLAN:**  
None